

052
0109

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/839,164

DATE: 01/22/2002

TIME: 17:02:42

Input Set : A:\09839164.txt

Output Set : N:\CRF3\01222002\I839164.raw

SEQUENCE LISTING

ENTERED

4 (1) GENERAL INFORMATION:

6 (i) APPLICANT: KOZLOV, VLADIMIR

7 TSyrlova, IRENA

9 (ii) TITLE OF INVENTION: INHIBITOR OF STEM CELL PROLIFERATION AND
10 USES THEREOF

12 (iii) NUMBER OF SEQUENCES: 11

14 (iv) CORRESPONDENCE ADDRESS:

15 (A) ADDRESSEE: NIXON & VANDERHYE P.C.

16 (B) STREET: 1100 NORTH GLEBE ROAD, 8th FLOOR

17 (C) CITY: ARLINGTON

18 (D) STATE: VIRGINIA

19 (E) COUNTRY: U.S.A.

20 (F) ZIP: 22201-4714

22 (v) COMPUTER READABLE FORM:

23 (A) MEDIUM TYPE: 1.44 Mb diskette

24 (B) COMPUTER: IBM PC compatible

25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS

26 (D) SOFTWARE: MS Word

28 (vi) CURRENT APPLICATION DATA:

C--> 29 (A) APPLICATION NUMBER: US/09/839,164

C--> 30 (B) FILING DATE: 23-Apr-2001

31 (C) CLASSIFICATION:

45 (vii) PRIOR APPLICATION DATA:

34 (A) APPLICATION NUMBER: US 08/477,668

35 (B) FILING DATE: 07-JUN-1995

38 (A) APPLICATION NUMBER: US 08/316,424

39 (B) FILING DATE: 30-SEP-1994

42 (A) APPLICATION NUMBER: PCT/US94/03349

43 (B) FILING DATE: 29-MAR-1994

46 (A) APPLICATION NUMBER: US 08/040,942

47 (B) FILING DATE: 31-MAR-1993

50 (2) INFORMATION FOR SEQ ID NO: 1:

52 (i) SEQUENCE CHARACTERISTICS:

53 (A) LENGTH: 423 base pairs

54 (B) TYPE: nucleic acid

55 (C) STRANDEDNESS: single

56 (D) TOPOLOGY: linear

58 (ii) MOLECULE TYPE: DNA (cDNA)

60 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

62	GTGCTGTCTC CTGCCGACAA GACCAACGTC AAGGCCGCCT GGGGTAAGGT CGGCGCGCAC	60
64	GCTGGCGAGT ATGGTGCGGA GGCCCTGGAG AGGATGTTCC TGTCCTTCCC CACCACCAAG	120
66	ACCTACTTCC CGCACTTCGA CCTGAGCCAC GGCTCTGCCC AGGTAAAGGG CCACGGCAAG	180

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/839,164

DATE: 01/22/2002

TIME: 17:02:42

Input Set : A:\09839164.txt

Output Set: N:\CRF3\01222002\I839164.raw

```

68 AAGGTGGCCG ACGCGCTGAC CAACGCCGTG GCGCACGTGG ACGACATGCC CAACGCGCTG      240
70 TCCGCCCTGA GCGACCTGCA CGCGCACAAG CTTCGGGTGG ACCCGGTCAA CTTCAAGCTC      300
72 CTAAGCCACT GCCTGCTGGT GACCCTGGCC GCCCACCTCC CCGCCGAGTT CACCCCTGCG      360
74 GTGCACGCCT CCCTGGACAA GTTCCTGGCT TCTGTGAGCA CCGTGCTGAC CTCCAAATAC      420
76 CGT                                                                    423
79 (2) INFORMATION FOR SEQ ID NO: 2:
81   (i) SEQUENCE CHARACTERISTICS:
82       (A) LENGTH: 141 amino acids
83       (B) TYPE: amino acid
84       (C) STRANDEDNESS:
85       (D) TOPOLOGY: linear
86   (ii) MOLECULE TYPE: peptide
87   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
91   Val Leu Ser Pro Ala Asp Lys Thr Asn Val Lys Ala Ala Trp Gly Lys
92   1          5          10          15
94   Val Gly Ala His Ala Gly Glu Tyr Gly Ala Glu Ala Leu Glu Arg Met
95   20          25          30
97   Phe Leu Ser Phe Pro Thr Thr Lys Thr Tyr Phe Pro His Phe Asp Leu
98   35          40          45
100  Ser His Gly Ser Ala Gln Val Lys Gly His Gly Lys Lys Val Ala Asp
101  50          55          60
103  Ala Leu Thr Asn Ala Val Ala His Val Asp Asp Met Pro Asn Ala Leu
104  65          70          75          80
106  Ser Ala Leu Ser Asp Leu His Ala His Lys Leu Arg Val Asp Pro Val
107  85          90          95
109  Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ala His
110  100         105         110
112  Leu Pro Ala Glu Phe Thr Pro Ala Val His Ala Ser Leu Asp Lys Phe
113  115         120         125
115  Leu Ala Ser Val Ser Thr Val Leu Thr Ser Lys Tyr Arg
116  130         135         140
119 (2) INFORMATION FOR SEQ ID NO: 3:
121   (i) SEQUENCE CHARACTERISTICS:
122       (A) LENGTH: 438 base pairs
123       (B) TYPE: nucleic acid
124       (C) STRANDEDNESS: single
125       (D) TOPOLOGY: linear
126   (ii) MOLECULE TYPE: DNA (cDNA)
127   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
131  GTGCACCTGA CTCCTGAGGA GAAGTCTGCC GTTACTGCCC TGTGGGGCAA GGTGAACGTG      60
133  GATGAAGTTG GTGGTGAGGC CCTGGGCAGG CTGCTGGTGG TCTACCTTTG GACCCAGAGG      120
135  TTCTTTGAGT CCTTTGGGGA TCTGTCCACT CCTGATGCTG TTATGGGCAA CCCTAAGGTG      180
137  AAGGCTCATG GCAAGAAAGT GCTCGGTGCC TTTAGTGATG GCCTGGCTCA CCTGGACAAC      240
139  CTCAAGGGCA CCTTTGCCAC ACTGAGTGAG CTGCACTGTG ACAAGCTGCA CGTGGATCCT      300
141  GAGAAGTTCA GGCTGTGGG CAACGTGTGC GTCTGTGTGC TGGCCCATCA CTTTGGCAAA      360
143  GAATTCACCC CACCAGTGCA GGCTGCCTAT CAGAAAGTGG TGGCTGGTGT GGCTAATGCC      420
145  CTGGCCCAACA AGTATCAC                                                                    438
148 (2) INFORMATION FOR SEQ ID NO: 4:
150   (i) SEQUENCE CHARACTERISTICS:

```

RAW SEQUENCE LISTING

DATE: 01/22/2002

PATENT APPLICATION: US/09/839,164

TIME: 17:02:42

Input Set : A:\09839164.txt

Output Set: N:\CRF3\01222002\I839164.raw

```

151      (A) LENGTH: 146 amino acids
152      (B) TYPE: amino acid
153      (C) STRANDEDNESS:
154      (D) TOPOLOGY: linear
156      (ii) MOLECULE TYPE: peptide
158      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
160      Val His Leu Thr Pro Glu Glu Lys Ser Ala Val Thr Ala Leu Trp Gly
161      1      5      10      15
163      Lys Val Asn Val Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu Leu
164      20      25      30
166      Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser Phe Gly Asp Leu
167      35      40      45
169      Ser Thr Pro Asp Ala Val Met Gly Asn Pro Lys Val Lys Ala His Gly
170      50      55      60
172      Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala His Leu Asp Asn
173      65      70      75      80
175      Leu Lys Gly Thr Phe Ala Thr Leu Ser Glu Leu His Cys Asp Lys Leu
176      85      90      95
178      His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn Val Leu Val Cys
179      100      105      110
181      Val Leu Ala His His Phe Gly Lys Glu Phe Thr Pro Pro Val Gln Ala
182      115      120      125
184      Ala Tyr Gln Lys Val Val Ala Gly Val Ala Asn Ala Leu Ala His Lys
185      130      135      140
187      Tyr His
188      145
191 (2) INFORMATION FOR SEQ ID NO: 5:
193      (i) SEQUENCE CHARACTERISTICS:
194      (A) LENGTH: 141 amino acids
195      (B) TYPE: amino acid
196      (C) STRANDEDNESS:
197      (D) TOPOLOGY: linear
199      (ii) MOLECULE TYPE: peptide
201      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
203      Val Leu Ser Gly Glu Asp Lys Ser Asn Ile Lys Ala Ala Trp Gly Lys
204      1      5      10      15
206      Ile Gly Gly His Gly Ala Glu Tyr Gly Ala Glu Ala Leu Glu Arg Met
207      20      25      30
209      Phe Ala Ser Phe Pro Thr Thr Lys Thr Tyr Phe Pro His Phe Asp Val
210      35      40      45
212      Ser His Gly Ser Ala Gln Val Lys Gly His Gly Lys Lys Val Ala Asp
213      50      55      60
215      Ala Leu Ala Ser Ala Ala Gly His Leu Asp Asp Leu Pro Gly Ala Leu
216      65      70      75      80
218      Ser Ala Leu Ser Asp Leu His Ala His Lys Leu Arg Val Asp Pro Val
219      85      90      95
221      Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ser His
222      100      105      110
224      His Pro Ala Asp Phe Thr Pro Ala Val His Ala Ser Leu Asp Lys Phe

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/839,164

DATE: 01/22/2002

TIME: 17:02:42

Input Set : A:\09839164.txt

Output Set: N:\CRF3\01222002\I839164.raw

```

225          115          120          125
227      Leu Ala Ser Val Ser Thr Val Leu Thr Ser Lys Tyr Arg
228          130          135          140
231 (2) INFORMATION FOR SEQ ID NO: 6:
232     (i) SEQUENCE CHARACTERISTICS:
233         (A) LENGTH: 146 amino acids
234         (B) TYPE: amino acid
235         (C) STRANDEDNESS:
236         (D) TOPOLOGY: linear
237     (ii) MOLECULE TYPE: peptide
238     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
239      Val His Leu Thr Asp Ala Glu Lys Ala Ala Val Ser Cys Leu Trp Gly
240      1          5          10          15
241      Lys Val Asn Ser Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu Leu
242      20          25          30
243      Val Val Tyr Pro Trp Thr Gln Arg Tyr Phe Asp Ser Phe Gly Asp Leu
244      35          40          45
245      Ser Ser Ala Ser Ala Ile Met Gly Asn Ala Lys Val Lys Ala His Gly
246      50          55          60
247      Lys Lys Val Ile Thr Ala Phe Asn Asp Gly Leu Asn His Leu Asp Ser
248      65          70          75          80
249      Leu Lys Gly Thr Phe Ala Ser Leu Ser Glu Leu His Cys Asp Lys Leu
250      85          90          95
251      His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn Met Ile Val Ile
252      100          105          110
253      Val Leu Gly His His Leu Gly Lys Asp Phe Thr Pro Ala Ala Gln Ala
254      115          120          125
255      Ala Phe Gln Lys Val Val Ala Gly Val Ala Thr Ala Leu Ala His Lys
256      130          135          140
257      Tyr His
258      145
274 (2) INFORMATION FOR SEQ ID NO: 7:
275     (i) SEQUENCE CHARACTERISTICS:
276         (A) LENGTH: 141 amino acids
277         (B) TYPE: amino acid
278         (C) STRANDEDNESS:
279         (D) TOPOLOGY: linear
280     (ii) MOLECULE TYPE: peptide
281     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
282      Val Leu Ser Ala Ala Asp Lys Ala Asn Val Lys Ala Ala Trp Gly Lys
283      1          5          10          15
284      Val Gly Gly Gln Ala Gly Ala His Gly Ala Glu Ala Leu Glu Arg Met
285      20          25          30
286      Phe Leu Gly Phe Pro Thr Thr Lys Thr Tyr Phe Pro His Phe Asn Leu
287      35          40          45
288      Ser His Gly Ser Asp Gln Val Lys Ala His Gly Gln Lys Val Ala Asp
289      50          55          60
290      Ala Leu Thr Lys Ala Val Gly His Leu Asp Asp Leu Pro Gly Ala Leu
291      65          70          75          80

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/839,164

DATE: 01/22/2002

TIME: 17:02:42

Input Set : A:\09839164.txt

Output Set: N:\CRF3\01222002\I839164.raw

```

301      Ser Ala Leu Ser Asp Leu His Ala His Lys Leu Arg Val Asp Pro Val
302                        85                      90                      95
304      Asn Phe Lys Leu Leu Ser His Cys Leu Leu Val Thr Leu Ala Ala His
305                        100                     105                     110
307      His Pro Asp Asp Phe Asn Pro Ser Val His Ala Ser Leu Asp Lys Phe
308                        115                     120                     125
310      Leu Ala Asn Val Ser Thr Val Leu Thr Ser Lys Tyr Arg
311      130                      135                      140
314 (2) INFORMATION FOR SEQ ID NO: 8:
316      (i) SEQUENCE CHARACTERISTICS:
317          (A) LENGTH: 146 amino acids
318          (B) TYPE: amino acid
319          (C) STRANDEDNESS:
320          (D) TOPOLOGY: linear
322      (ii) MOLECULE TYPE: peptide
324      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
326      Val His Leu Ser Ala Glu Glu Lys Glu Ala Val Leu Gly Leu Trp Gly
327      1          5          10          15
329      Lys Val Asn Val Asp Glu Val Gly Gly Glu Ala Leu Gly Arg Leu Leu
330      20          25          30
332      Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser Phe Gly Asp Leu
333      35          40          45
335      Ser Asn Ala Asp Ala Val Met Gly Asn Pro Lys Val Lys Ala His Gly
336      50          55          60
338      Lys Lys Val Leu Gln Ser Phe Ser Asp Gly Leu Lys His Leu Asp Asn
339      65          70          75          80
341      Leu Lys Gly Thr Phe Ala Lys Leu Ser Glu Leu His Cys Asp Gln Leu
342      85          90          95
344      His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn Val Ile Val Val
345      100         105         110
347      Val Leu Ala Arg Arg Leu Gly His Asp Phe Asn Pro Asp Val Gln Ala
348      115         120         125
350      Ala Phe Gln Lys Val Val Ala Gly Val Ala Asn Ala Leu Ala His Lys
351      130         135         140
353      Tyr His
354      145
356 (2) INFORMATION FOR SEQ ID NO: 9:
358      (i) SEQUENCE CHARACTERISTICS:
359          (A) LENGTH: 23 amino acids
360          (B) TYPE: amino acid
361          (C) STRANDEDNESS:
362          (D) TOPOLOGY: linear
364      (ii) MOLECULE TYPE: peptide
366      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
368      Val His Leu Ser Ala Glu Glu Lys Glu Ala Val Leu Gly Leu Trp Gly
369      1          5          10          15
371      Lys Val Asn Val Asp Glu Val
372      20
375 (2) INFORMATION FOR SEQ ID NO: 10:

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/839,164

DATE: 01/22/2002

TIME: 17:02:43

Input Set : A:\09839164.txt

Output Set: N:\CRF3\01222002\I839164.raw

L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]